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January 29, 1999

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PROJECT XL
SEMI-ANNUAL REPORT

We are pleased to submit the enclosed first semi-annual report for the Witco OrganoSilicones Group Sistersville Plant's XL Project. Per our agreement with the US Environmental Protection Agency and the WV Division of Environmental Protection, this report is due on January 31, 1999.

Sincerely,

F. E. Dailey
Plant Manager

DISTRIBUTION

Report Recipients Under the Federal Rule

Mr. Tad Radzinski (3WC11)
U.S. EPA, Region III
Waste & Chemicals Management Division
3WC11
1650 Arch St.
Philadelphia PA 19103-2029

Ms. L. Nancy Birnbaum
Mail Code 2129
U.S. EPA 401 M Street S.W.
Washington DC 20460

Mr. Edward L. Kropp
WV Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston WV 25311-2599

WM/PP Study Advisory Committee

Mr. Mike Dorsey
WV Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Mr. Tad Radzinski
(Address above)

Mr. James McKnight
Route 39, Box 109
St. Marys, WV 26170

Mr. Jesse Barnhart
Witco Corporation, OrganoSilicones Group
Sistersville Plant
3500 South State Route 2
Friendly, WV 26146 - 9720

Mr. Ray Neupert
Industrial Extension Agent
West Virginia University at Parkersburg
300 Campus Drive
Parkersburg WV 26101

Mr. Fred Dailey
Plant Manager
Witco Corporation, Sistersville Plant

Mr. Dennis Heintzman
Director of EH&S
Witco Corporation, Sistersville Plant

WM/PP Study Study Team:

Mr. Roger L. Price
STV Incorporated
Four Gateway Center, Suite 325
Pittsburgh PA 15222

Mr. Robert P. Briggs
STV Incorporated
Four Gateway Center, Suite 325
Pittsburgh PA 15222

Mr. Anthony J. Vandenberg
Environmental Protection Department
Witco Corporation, Sistersville Plant

Dr. Robert A. Kayser
Process Research & Development
Witco Corporation, Sistersville Plant

Mr. Dale Koontz
Environmental Protection Department
Witco Corporation, Sistersville Plant

Copies To:

Sistersville Public Library Project XL File

Mr. Jonathan McClung
WV Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston WV 25311-2599

Mr. Christopher van Löben Sels
Natural Resources Defense Council
71 Stevenson Street
San Francisco CA 94105

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SEMI-ANNUAL REPORT
FOR THE PERIOD JULY 1 TO DECEMBER 31, 1998

FOR PROJECT XL AGREEMENT

Between

Witco Corporation OrganoSilicones Group,

U.S. Environmental Protection Agency, and

West Virginia Division of Environmental Protection

STATUS OF THE XL PROJECT

On October 17, 1997, the Final Project Agreement (FPA) for the Witco OrganoSilicones Group XL Project was signed by all parties. On March 30, 1998 Witco and the WV Division of Environmental Protection entered into a Consent Order to implement the provisions of the FPA. On September 15, 1998, EPA published the final rule implementing the FPA from a federal perspective. That Federal Register notice (Volume 63, Number 178, Page 49384) includes a great deal of background on this XL project.

Methanol from the capper unit was first shipped for reuse on October 8, 1997. Methanol reuse under the XL agreement officially commenced on October 27, 1997. In 1997 and 1998, just over 500,000 lbs of methanol have been reused.

The Waste Minimization / Pollution Prevention Study Team was formed December 16, 1997. The WM/PP Advisory Committee was formed on December 30, 1997. The study is complete and Witco issued the Final Report on December 11, 1998.

The thermal oxidizer for the capper unit vents was started up on April 1, 1998. On July 15, 1998 the performance test for the oxidizer was completed. The oxidizer passed all of the performance requirements, and the results were reported to the EPA and DEP. The oxidizer is reducing total organics in the vent stream by 99.99%, versus the 98% minimum required by the Agreement. Total emissions reductions will be reported in the annual report in July.

SEMI-ANNUAL REPORT REQUIREMENTS

For this initial report, we will provide information for the periods beginning:

October 8, 1997 (first shipment of reused methanol)

April 1, 1998 (startup of the thermal oxidizer)

July 1, 1998 (beginning of the first semi-annual report six-month period)

This semi-annual report must contain information as specified by the Federal Rule [40 CFR 264.1080(f)(2)(viii)(B)] implementing this project (as well as the Final Project Agreement, and the corresponding sections of the State Consent Order). Beginning in 1999, on January 31 of each year, the Sistersville Plant shall submit a semiannual written report to the EPA and WVDEP, with respect to the preceding six month period ending on December 31. The following information is listed in the order prescribed in paragraphs (f)(2)(viii)(B)(1) through (f)(2)(viii)(B)(10) of this rule.

- (1) Instances of operating below the minimum operating temperature established for the thermal incinerator under paragraph (f)(2)(ii)(A)(1) of this section which were not corrected within 24 hours of onset.

April 1 to June 30, 1998	None
July 1 to December 31, 1998	None

- (2) Any periods during which the capper unit was being operated to manufacture product while the flow indicator for the vent streams to the thermal incinerator showed no flow.

April 1 to June 30, 1998	39 hours
July 1 to December 31, 1998	93 hours
Total for 1998	132 hours
Maximum Allowed by Rule During Maintenance or Malfunction	240 hours

- (3) Any periods during which the capper unit was being operated to manufacture product while the flow indicator for any bypass device on the closed vent system to the thermal incinerator showed flow.

April 1 to June 30, 1998	39 hours
July 1 to December 31, 1998	93 hours
Total for 1998	132 hours
Maximum Allowed by Rule During Maintenance or Malfunction	240 hours

- (4) Information required to be reported during that six month period under the preconstruction permit issued under the state permitting program approved under subpart XX of 40 CFR Part 52 Approval and Promulgation of Implementation Plans for West Virginia. [WV Office of Air Quality Regulation 13 Permit]

There is no such information to be reported under the permit.

- (5) Any periods during which the capper unit was being operated to manufacture product while the condenser associated with the methanol recovery operation was not in operation.

None. The capper unit cannot operate to manufacture specification product while the condenser is not in operation. Should the condenser begin operating improperly, the operator will quickly correct the situation, so that specification product can again be made.

- (6) The amount (in pounds and by month) of methanol collected by the methanol recovery operation during the six month period.

Month	Methanol Collected by the Methanol Recovery Operation, lbs
January 1998	48,000
February	39,000
March	39,000
April	24,000
May	44,000
June	16,000
July	59,000
August	29,000
September	39,000
October	50,000
November	32,000
December 1998	38,000
Total for 1998	457,000

The above values are calculated from the total methanol collected for the year times the portion of methanol generated (see Item 8, below) in each given month.

- (7) The amount (in pounds and by month) of collected methanol utilized for reuse, recovery, thermal recovery/treatment, or bio treatment, respectively, during the six month period.

	Collected Methanol Destination, lbs		
Month	Reuse	Thermal Recovery / Treatment	Bio-treatment
October – December 1997	76,620	0	0
January 1998	0	0	0
February	75,420	0	0

Month	Collected Methanol Destination, lbs		
	Reuse	Thermal Recovery / Treatment	Bio-treatment
March	0	0	0
April	32,520	0	0
May	40,280	0	0
June	42,854	0	0
July	0	0	0
August	39,520	0	0
September	35,920	0	0
October	40,020	0	0
November	117,720	0	0
December 1998	0 *	0	0
Total for 1998	424,254		
Total Since Commencement of Reuse	500,874	0	0

* 32,180 lbs were in inventory, awaiting shipment at 12/31/98.

We have thus met the Performance Standard that, “on an annual basis, the Sistersville Plant shall ensure that a minimum of 95% by weight of the methanol collected by the methanol recovery operation (also referred to as the "collected methanol") is utilized for reuse, recovery, or thermal recovery/treatment.” [40 CFR 264.1080(f)(2)(v)(A)] In fact, 100% has been reused.

- (8) The calculated amount (in pounds and by month) of methanol generated by operating the capper unit.

Month	Methanol Generated by the Capper Unit, Calculated, lbs
January 1998	70,360
February	56,826
March	56,604
April	35,150
May	64,905
June	23,174
July	86,545
August	42,294
September	56,814
October	73,890

Month	Methanol Generated by the Capper Unit, Calculated, lbs
November	47,461
December 1998	56,358
Total for 1998	670,383

As discussed in the Final Project Agreement, a portion of the methanol generated in the capper unit cannot be economically collected, but rather goes to the onsite waste water treatment unit via a steam ejector, or to the thermal oxidizer. This is the difference between the methanol generated (Item 8) and collected (Item 6).

- (9) The status of the WMPP Project, including the status of developing the WMPP Study Report.

The WMPP Study Report was issued to the US EPA and WV DEP by Witco on December 11, 1998. The report explains in great detail all the work done during the study, and our plans for continuing the work.

- (10) Beginning in the year after the Sistersville Plant submits the final WMPP Study Report required by paragraph (f)(2)(vi)(C) of this section, and continuing in each subsequent Semiannual Report required by paragraph (f)(2)(viii)(B) of this section, the Sistersville Plant shall report on the progress of the implementation of feasible WMPP opportunities identified in the WMPP Study Report. The Semiannual Report required by paragraph (f)(2)(viii)(B) of this section shall identify any cross media impacts or impacts to worker safety or community health issues that have occurred as a result of implementation of the feasible WMPP opportunities.

Since issuing the WMPP Study Report, the Sistersville Plant Pollution Prevention Council has held its first meeting, on January 26, 1999. The council discussed at length how to proceed with implementing the recommendations of the Study.

CONCLUSION

Witco's XL Project has been very successful thus far. We have met all of our requirements, produced the intended superior environmental performance, and have received the temporary deferral from certain regulations. The Project is demonstrating an alternative to previously existing regulations and yielding cost savings to the company.

Please contact Okey Tucker of the Witco Sistersville Plant (304-652-8131) for further information.